

What is claimed is:

1. An LED wherein a can type LED is provided with an anode, a cathode and an LED pedestal within a housing, and connection ends of the anode and the cathode lead at least to the outside of the housing, so that a voltage can be applied between the anode and the cathode via these connection ends, wherein

the LED is characterized in that a condition of isolation is maintained between the connection end of said anode and the housing, as well as between the connection end of said cathode and the housing, and a lead end thermally connected to said LED pedestal is provided outside of the housing.

2. The LED according to Claim 1, characterized in that the housing and the lead end of the LED pedestal are electrically connected to each other.

3. The LED according to Claim 1, characterized in that at least a portion of the housing, together with the lead end of the LED pedestal, is formed of an insulating material, whereas the connection ends of the anode and the cathode are formed of a conductive material.

4. The LED according to any of Claims 1 to 3, characterized in that the lead position of the lead end is set substantially directly beneath the LED pedestal.

5. The LED according to Claim 4, characterized in that
the lead position of the lead end is set in a portion which is
approximately aligned with the center of a transparent portion
5 that is attached to the housing, together with the LED pedestal.

6. The LED according to any of Claims 1 to 5, characterized
in that the lead position of the lead end is aligned in an
approximately straight line with the lead positions of the
10 respective connection ends of the anode and the cathode.

7. The LED according to any of Claims 1 to 6, characterized
in that an LED element is placed on the LED pedestal in a condition
of electrical insulation.

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8. The LED according to any of Claims 1 to 7, characterized
in that a diode makes a connection between the anode and the
cathode in an anti-parallel manner within the housing.

20 9. The LED according to Claim 8, characterized in that
the diode is a Zener diode.

25 10. The LED according to any of Claims 1 to 9, characterized
in that a Zener diode is installed on a Zener diode pedestal
within the housing, and an insulating plate of which the surface

is processed with a metal is used for the Zener diode pedestal.

11. The LED according to any of Claims 1 to 10,
characterized by being used for the emission of ultraviolet
5 light.

12. An attachment structure of an LED, characterized in
that in a connection of an anode and a cathode of an LED where
said anode, said cathode and an LED pedestal are provided within
10 a housing to wiring patterns provided on a substrate, a lead
end which is thermally connected to said LED pedestal is provided
outside of the housing of said LED, and a heat radiating pattern
or a cooling pattern is provided independently of the wiring
patterns on said substrate and the lead end of said LED is thermally
15 connected to the heat radiating pattern or the cooling pattern.

13. The attachment structure of an LED according to Claim
12, characterized in that the lead end of the LED that has been
mounted on a substrate is electrically connected to the heat
20 radiating pattern or the cooling pattern of said substrate.

14. The attachment structure of an LED according to Claim
12 or 13, characterized in that the heat radiating pattern or
the cooling pattern is formed on the rear surface of the substrate
25 on which the wiring patterns are formed.

15. An attachment structure of an LED, characterized in that in a connection of an anode and a cathode of an LED where said anode, said cathode and an LED pedestal are provided within 5 a housing to wiring patterns provided on a substrate, a lead end which is thermally connected to said LED pedestal is provided outside of the housing of said LED, and a heat radiating member or a cooling member is directly attached to the rear surface of said substrate in a manner that the lead end of said LED is 10 thermally connected either directly to the heat radiating member or the cooling member or indirectly to the heat radiating member or the cooling member via a heat radiating pattern or a cooling pattern which is provided independently of the wiring patterns of said substrate.

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16. The attachment structure of an LED according to any of Claims 12 to 15, characterized in that the width of the heat radiating pattern or the cooling pattern differs from the width of the wiring patterns by a large margin.

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17. The attachment structure of an LED according to any of Claims 12 to 16, characterized in that the LED is used for emitting ultraviolet light.